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ABSTRACT

This is one in a series of four papers describing a boy-oriented program for elementary school children. The program is based on the premise that boys have more reading problems, are referred more often for behavioral problems, and have more unexcused absences than girls and that creating a curriculum designed to meet their special academic and affective needs will close the gap. The paper describes the need for a boy-oriented program, presents a description of a boy learner, discusses important implications of the educational programs of boys and girls, and describes how a boy-oriented program can be implemented. (TJ)

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What's a Boy? The Need for a "Boy-Oriented" Program

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WHAT'S A BOY?

THE NEED FOR A "BOY-ORIENTED" PROGRAM

There appears to be a contradiction between what schools say they do and what they actually do. Despite concern for individual differences in the classrooms, the most obvious differences of all, the sex of the pupil, has received scant attention. Educators recognize the existence of a developmental differential between the sexes, but, too often fail to make realistic provisions for boys as compared to girls.

More boys have reading problems than do girls. Entwisle (1971) reported that over ninety percent of referrals to reading clinics in the United States were males. Retention (non-promotion) rates were higher for boys. Estimates of retention rates varied, but, about two out of three failures seemed to be male. Boys failed at least twice as often as girls as reported in Estimates of School Statistics Research Report (NEA, 1970-75).

Boys are referred for behavior problems and special education classes far more often than girls (Berlin, 1969; Kinsbourne, 1969). Boys have more negative remarks written about them on cumulative file records, and a higher rate of absenteeism than girls at the local school level. The generalizations were substantiated by an investigation within the Thermalito Union Elementary School District (Barnes and

Gehringer, 1977, 1978a, 1978b; Gehringer and Barnes, 1978) in an analysis of standardized tests, psychological referrals, cumulative file comments, unexcused absence data, remedial reading class enrollments, "discipline problems" identified by teachers and enrollments of the Educationally Handicapped classes. It was found that boys, as compared to girls, at a two-to-one ratio, had more difficulties in school. In contrast, the girls, in comparison to the boys, succeeded more than the boys, also at a two-to-one ratio. While the two rates generally vary together, rates of males and females typically show an inverse relationship (Barnes and Gehringer, 1977, 1978a, 1978b; Gehringer and Barnes, 1978).

Assessment data from the State of California 1975-76 testing program further substantiate the findings. Boys score significantly and substantially lower than girls throughout the state, regardless of categorical aid programs (see Table 1).

Local and California State data are not exceptional, as they reflect a national pattern. Low achievement in boys as compared to girls is a well documented fact.

Bentzen (1966) indicated that among first-grade children, the boy-girl ratio for school-related problems was 3:1 and for socio-emotional problems 11:1. Peltier (1968) and Bentzen (1966) both found that about two-thirds of all grade repeaters were boys. A report on dropouts in the New York City schools

TABLE 1
(Percent Correct)

Grade/Sex	Reading	Written Expression	Spelling	Math
Grade 2				
Girls	71	--	--	--
Boys	65	--	--	--
Grade 3				
Girls	84	--	--	--
Boys	80	--	--	--
Grade 6				
Girls	71.6	69.0	61.5	59.7
Boys	67.9	63.1	58.6	60.0

indicated that 63 percent of them were boys (Lavin, 1965). The same report found that underachievement starts in the sixth grade for girls but as early as first grade for boys.

Analysis of available data underscores the problem: Despite higher numbers of males than females, only 872,000 boys were graduated from high schools in 1962, compared to 966,000 girls. The median number of school years completed by women then was 12 years, contrasted with 11.6 years for men (President's Commission on the Status of Women, 1963).

An ESEA Title III (later termed IV-C) program was developed in Thermalito and funded for a three-year period. The Project addressed the critical needs of "boy-learners."

The project, named "Equality Education for Everyone," was later nicknamed "Project Boy" (Barnes and Gehringer, 1977, 1978a).

Project Boy major objectives were to develop and implement a "boy-oriented" primary program (grades K-3) to give boys and girls maximum opportunities to reach their potentials in social and academic progress. The project objectives were met through (1)"boy-oriented" classroom and extra curricular activities; (2) staff development and attitude change of teachers; and (3) "boy-oriented" materials and activities developed in the classrooms to produce a project product: The Project Boy Syllabus Activity Card Program.

There are many factors and concerns in establishing a "boy-oriented" program; however, the purposes of this paper are as follows: (1) to discuss the need of a "boy-oriented" program; (2) to present a definitive description of the "boy-learner"; (3) to discuss important implications regarding the educational programs of boys and girls; and (4) to describe how a "boy-oriented" program can be implemented.

Basing instruction on sex differences is one way to individualize instruction. To date, insufficient emphasis has been placed regarding the differences in maturation rates, interests, energy levels, and the need for development of sex roles. Boys and girls are different both biologically and socially. There is an added but less obvious difference,

the psychological difference. Maccoby, et al (1974) state that the biological "predispositions" interact with the impact of social experiences to shape the psychological make-up of the person. These differences have important consequences for how children grow, think, and learn.

The male is biologically more vulnerable to stress, as indicated by the high mortality rate from conception through every age of the life span. Prenatal mortality is greater among males. Related to mortality rates, is a male's tendency to have more serious diseases. Women are ill more frequently, but with less consequences, Men are sick less, but with more serious consequences. Some of the ills that affect males mostly are albinism of the eyes, congenital blindness, color blindness, day blindness, hemophilia, shortsightedness, night blindness and retinal detachment. More males suffer brain injury at birth. Epilepsy, schizophrenia, infantile autism and feeblemindness are more common among boys than among girls. A disorder in which the brain control center is on the same side as the dominent hand (mixed dominance) is about five times more common among boys than girls. This finding is especially interesting to educators, because it is common among students with reading and learning problems (Bentzen, 1966; Sexton, 1969).

The male and female, who are chronologically the same age, are not biologically the same age. In a longitudinal study

of the developmental criteria for school entrance, involving more than nine hundred subjects from kindergarten through second grade, Ilg and Ames (1965) found that girls were ahead of boys particularily from the age of five to the age of six. The bones and muscles of girls generally develop their strength earlier. Little girls learn earlier than boys to button and unbutton their clothing and how to turn doorknobs and faucets. The female superiority in wrist movement, five finger movement, and manual dexterity continues throughout childhood. At age two, the girl is biologically almost six months older than the boy.

Bentzen (1966) also reported evidence that at six years of age girls are twelve months ahead of boys developmentally, and at nine years, eighteen months ahead. This difference continues to increase until, by age thirteen, the girl is biologically two years older than the boy (Firester, 1974).

Rubin (1970) found a developmental age difference between boys and girls of the same chronological age. At the pre-school level, boys and girls differed in language and reading readiness before kindergarten entrance. On the basis of available research (Davidson and Lang, 1960; Kagen, 1964; and McCarthy, 1964), it is reasonable to assume that sex differences need to be acknowledged and provided for in the school setting. While the difference in developmental rate is important, serious observers of

sex differences recognize that this single-facted conception of child development ought not be applied indiscriminately to boys and girls. There are qualitative differences that bear consideration.

Dwyer (1972) presented evidence against a purely maturational explanation of the sex differences in the development of reading. She points out that one should not look at developmental differences as a sole explanation for the reading (and other) problems of boys. Maturational differences are likely to explain only some of the several variables responsible for the fact that boys have a higher number of problems than girls.

The sex glands begin producing hormones in the male gonads as early as the seventh week after conception and several weeks later in the female gonads. These hormones have an important bearing on both physiology and personality. The fact that injections of male hormones produce increased levels of aggression in both males and females belies the assertion that the greater observed male aggression is a consequence of conditioning. Aggression may be expressed in a variety of ways: curiosity, self-assertiveness, mastery, competition and independence. No matter what definitions of aggression are used, many studies support the assertion that boys are more aggressive than girls (Scheinfield, 1943; Starr, 1968). Studies have shown that aggression of the

male is different in quality and kind from that of the female (Meade, 1919; LeBarre, 1954; and Starr, 1968).

Still one comes across the idea that sex differences are simple: boys are more openly aggressive than girls, it is asserted, and identical conditioning of boys and girls will have the same results. This notion is pervasive in our society and may provide an insight into the difficulties many boys experience in school.

In an investigation of "intelligence" of males versus females, Charles St. John (1932) tested one thousand pupils in grades one through four and found no significant sex differences in measured intelligence.

Wilson, Burke, and Fleming (1939), in a three-year study of sex differences in measured intelligence, concluded that there is no significant scoring difference on mental tests at the beginning of school. Boys and girls were equally "ready" to read, but, by the end of the first year of school, the girls significantly exceeded the boys in reading growth and achievements (Nila, 1953).

Girls typically display predominance in special ability tests such as verbal fluency, clerical aptitude, rote memory, and manual dexterity, but not in verbal comprehension or vocabulary. These special ability tests attest to the advantages for boys in problem-solving, mechanical aptitude and spatial relationships. In a group problem-solving

situation, girls function well, but not as well as boys in analytical-thinking skills (Tyler, 1969).

Research has demonstrated that during the first three or four years of life, girls have been found to articulate more clearly, say their first word earlier, form sentences sooner, and count accurately at an earlier age than boys. Girls were found to rate higher in "Language" skills, were more fluent verbally and tended to write longer themes (Maccoby, 1973). The verbal superiority of girls, which, if it is not innate (McCarthy, 1954), at least appears to be socialized very early (Caplan and Kinsbourne, 1974).

One prime aspect of socialization is that of role learning. One of the developmental tasks facing children is the adoption and maintenance of a sex role which will help them eventually to reach a sense of real identity.

It has been proposed that sex differences in academic problems are due to nuture rather than nature. Broverman, et al (1969) state there is no evidence that sex differences in physiology lead to sex differences in academic ability, Brewton (1968), Sexton (1969), and Lavin (1965) suggested that boys perform more poorly than girls in the elementary classrooms, not because of biological differences, but because of learned factors that are sex-typed. Maccoby, et al (1974) suggest that biological predisposition interact with the environment.

Children generally develop sex identification from ages three through seven. At the age of three, boys and girls show incomplete recognition of sex differences in dolls and in themselves. By four years of age, the recognition is practically perfect. Shortly after children become aware of differences in appearance, they become aware of differences in appropriate sex roles. By the time children enter school, they have acquired the concepts of male and female (Kagen, 1964).

The five-year-old entering school does not confront a situation that is neutral sexually. The expectations and standards to which he is subjected are made and enforced mostly by women. Analysis of the statistics from the Research Division of the National Education Association indicates, that, in the elementary schools alone, women held 85 per cent of all classroom teaching positions. Female domination of the United States schools appears complete from kindergarten through fourth grade. In contrast to the prevalence of women teachers in the United States, European countries have a preponderance of male teachers and cultural attitudes differ from these in the United States (Gunderson, 1976). Two British studies by Bremer and Johnson, (reported by Gunderson, 1976) and one German study (reported by Gunderson, 1976) oppose the long standing assumption in American education that boys experience a higher incidence of reading disability. These

three studies specifically show that it is the boys rather than girls, who are better readers. Research from an Israeli Kibbutz System discloses an equally high quality performance level for both sexes, which, in part, could be attributed to cultural influences (Gross, 1976).

Based on the writing of Sexton (1969), Peltier (1968), Holt (1964), Biller and Barstelmann (1967) and Kagen (1964), Table 2 compares the "traditional" characteristics encouraged by the American elementary school and the "typical" characteristics of American boys and girls (Gentile and McMillan, 1976).

In a comparison of the two elements, as noted in Table 2, it appears that for girls the school's expectations and traditional sex-role expectations are congruent and provide a strong double-barreled message reinforcing girl's obedience, docility, and dependence. For boys, the school's expectations result in a double message: (1) Be aggressive, active, achieving, and independent. (Be masculine.) But, (2) also be passive, quiet, and conforming. (Be a good pupil.) As a result, boys tend to "act-out" in school but girls tend to be "good" and thus more easily assimilated.

The girl who fulfills the traditional role may do what she is told and thus achieve. The boy faced with a role conflict may feel somewhat alien to the school environment

Table 2

Characteristics

The "Traditional" American Elementary School Encourages:	"Typical" Pupil Characteristics:
Politeness, neatness, obedience and cleanliness are promoted.	Girls: Polite, tactful, neat, conforming. Boys: Physically aggressive.
Strong emphasis on language and symbols. De-emphasis on things.	Girls: Verbally competent. Boys: Object-oriented, competent, in physical activities.
Speaking is discouraged, listening is encouraged. Learning is sedentary and passive, not active.	Girls: Submissive, passive, dependent. Boys: Independent, aggressive, strongly interested in gross motor behavior.
Teacher is dominant figure.	Girls: Submissive. Boys: Dominant, aggressive.
Strategies for figuring out the teacher offer more success than strategies for learning.	Girls: Person-oriented, affiliative. Boys: Object-oriented.

and actually contradict the potential for success (Barnes and Gehringer, 1977; Gentile and McMillan, 1976).

In addition to developing a sensitivity to the unique problems of boys, the schools need to provide students with good role models. The question is: Who makes a good role model? One of the problems in answering the question is that the word "good" in this context, can mean either "desirable," or, simply, "effective."

Teachers are role models. Since 85 percent of elementary teachers are female, the primary grades may need to provide more male role models for boys and provide more opportunities for boys to express their masculine qualities. Male and female teachers can provide suitable "boy-oriented" activities to challenge a boy's physical aptitude as well as his mental. A balanced elementary faculty needs a variety of personalities as well as men on its staff (Barnes and Gehringer, 1977; May, 1971).

The suggestion to increase the number of male teachers in the elementary school classrooms is cited by May (1971), Gentile and McMillan (1976), and Vairo (1969). Unfortunately, there are a limited number of studies comparing the effects of male and female teachers on the primary pupil's academic achievement and personality due, in part, to the limited number of male teachers in primary grades.

Research studies evaluating the effects of male and female teachers in the classroom are difficult to compare due to many limitations. For example, definitions of "male classroom teacher" were inconsistent. Some male teachers were responsible for a self-contained class or were participants in the classroom with female teachers. There were wide variations in the number of male versus female teachers who were evaluated. The periods of time evaluated differed. Subjects in the various studies reviewed were usually not in the primary grades (K-3) but in the intermediate (4-6) grades. Vroegh (1976) researched fifteen studies comparing the effects of male and female teachers on academic achievement and found that only two studies reported a favorable influence on boys' achievement. She concluded that having only male teachers in a school does not necessarily alleviate boys' problems in academic achievement. This was substantiated by Barnes and Gehringer (1977, 1978) and Preston (1979). A balanced male and female staff is recommended, however, by Barnes and Gehringer (1977).

Project Boy (Barnes and Gehringer, 1977, 1978a, 1978b, Gehringer and Barnes, 1978) was designed with the above limitations of previous research in mind. Several specific procedures built into the implementation of Project Boy were: (1) Project teachers were selected based on a set of criteria of teacher characteristics; (2) Project staff consisted

of 50% male and 50% female teachers; (3) Project staff was placed in self-contained classrooms, kindergarten through third grade; (4) A three year commitment to Project Boy was obtained from project teachers; (5) A matched comparison group and a longitudinal design were utilized for the three-year study; and (6) Specific teacher-aides, strategies, techniques were developed, tested and produced that were found to be effective with boys and girls.

"Project Boy" has proved to be quite successful in the Thermalito Union Elementary School District. The achievement levels of boys increased significantly and became comparable to the high level of achievement of girls as noted in Tables 3 and 4.

Table 3

Boys; Target Group
Longitudinal Gains, 1974 - 1977

SUBJECT AREA	AVERAGE G.E.	GAINS FOR 1974-75	GAINS FOR 1975-76	GAINS FOR 1976-77
	+2.0			
	+1.9			
	+1.8			
	+1.7			
	+1.6			
	+1.5			
	+1.4			
	+1.3			
	+1.2			
	+1.1			
	+1.0			
	+0.9			
	+0.8			
Language...	+0.7			
Math___	+0.6			
Reading---	+0.5			
	+0.4			
	+0.3			
	+0.2			
	+0,1			
	+0.0			

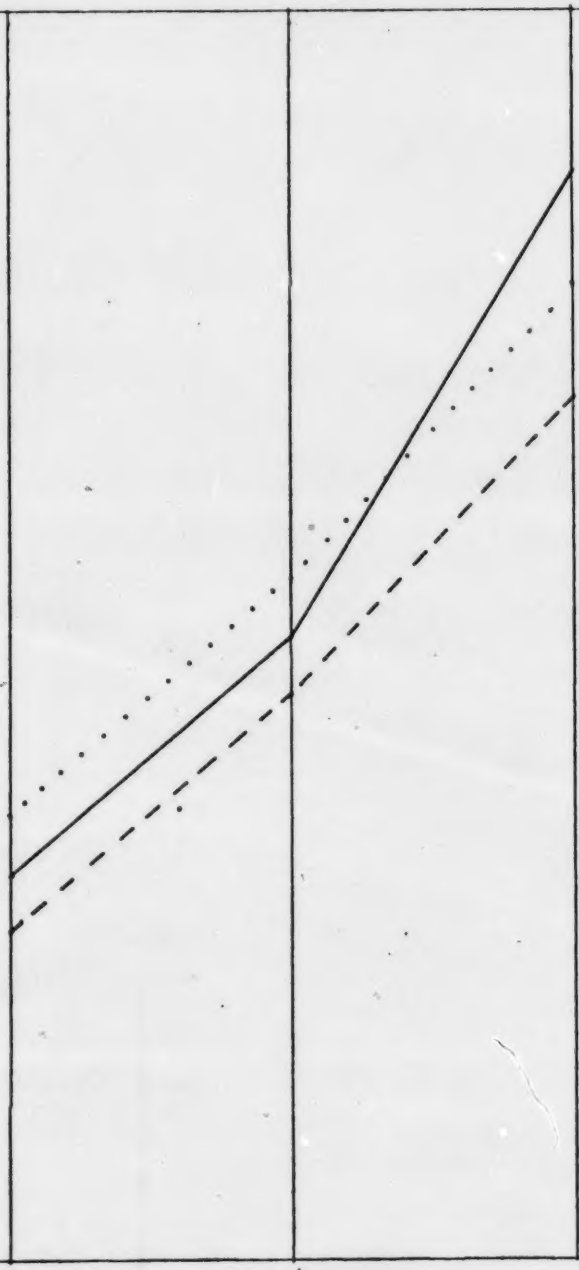
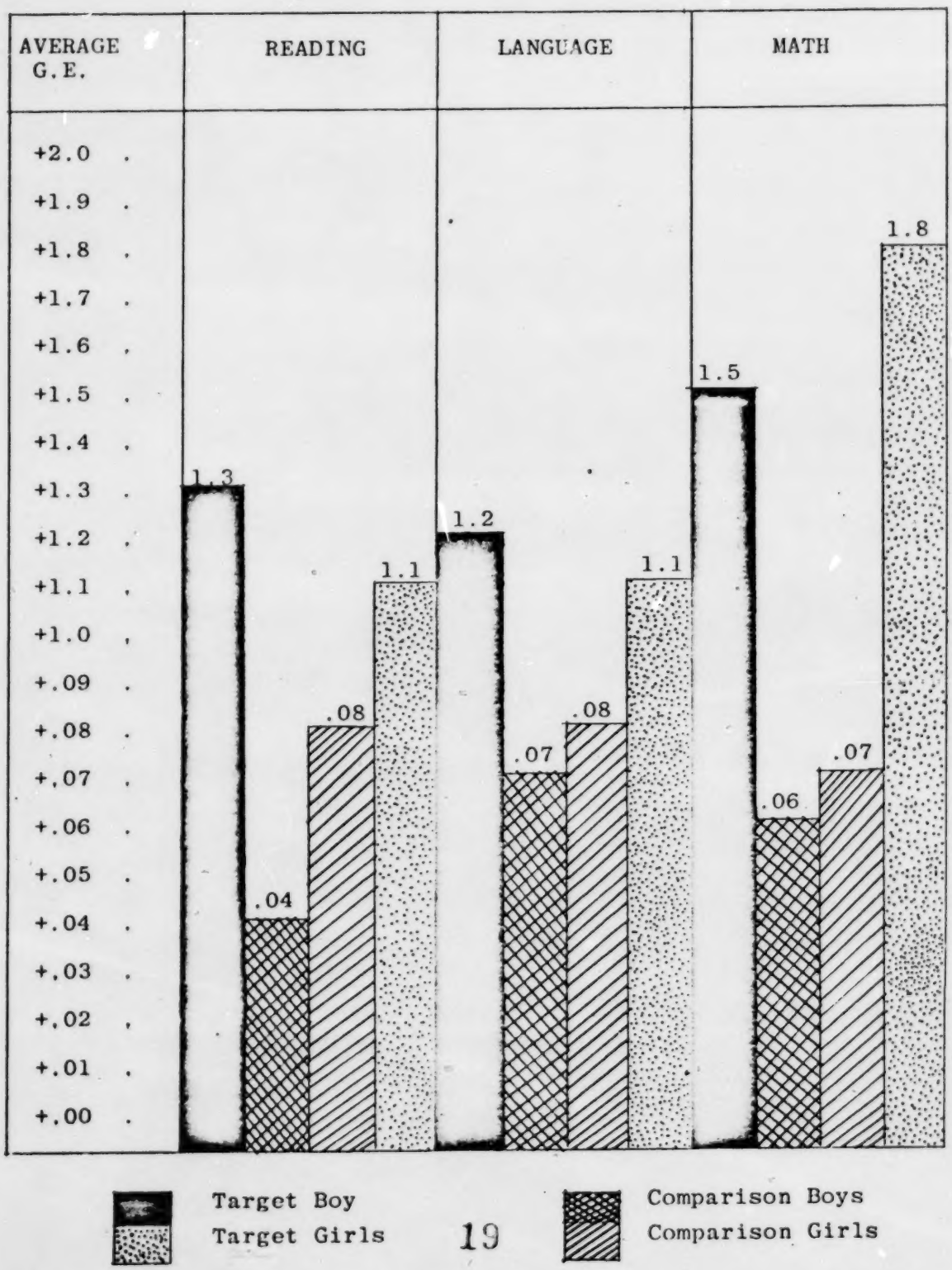


Table 4

Target Boys and Girls vs.
Comparison Boys and Girls
1976-77



The pattern of failure often found in the primary grades can be altered. Thermalito Schools' Project Boy has proven quite successful. The achievement levels of boys increased significantly and became comparable to the high achievement level of girls. With Project Boy implementation, not only did the progress of girls increase, but there was no statistically significant difference (to the .05 level of significance) between the reading, math and language scores of boys and girls. The gap was closed!

In an effort to provide for sex differences in the classroom, serious consideration might be given to the composite summary of "Sexual Differences in Learning" (Barnes and Gehringer, 1977, 1978b). (See Table 5.) Simple recognition of the differences in the needs of male and female students will, in itself, do much to initiate a curriculum with varied sex orientations, vary the oneness of the instructional program and give movement in the direction of individualization (Stanchfield, 1973).

More unbaised research is needed to determine the differences in how teachers discipline boys and criticize boys (as opposed to girls) and how these differences affect a child's development. Also, teachers need to become increasingly aware of how they themselves may be subtly shaping boys toward independent achievement and girls toward dependence.

Table 5

Project Boy: Sexual Differences In Learning

1. There are no differences in I.Q. scores, scholastic, aptitude and other pertinent characteristics comparing boys to girls.

2. Girls typically maintain superiority over boys in all subjects, except possibly math.

3. Academic differences are due to both environmental conditions and hereditary factors.

4. Our cultural emphasis is on "the athlete" rather than on "the reader" for boys. We typically better prepare girls for school than boys.

5. The cause of reading score disparity between boys and girls is inherent in the school situation and the social setting which adversely affects boys' early academic progress.

6. Boys do not appear to learn to read better in sex-segregated groups.

7. Boys should be taught in varied, exciting ways, with materials designed according to individual learning patterns.

8. A "good" school program for boys (and girls) will allow both to progress, without sex differences.

9. Boys are more aggressive.

10. Boys are less conforming.

11. Boys are less "nice."

12. Boys have lower frustration levels for boredom.

13. Boys are less able to attend.

14. Boys are more inner-directed.

15. Boys are more concerned with learning to read to find out something which is of interest to them.

16. Boys are less able to tolerate monotony of "traditional" classroom activities.

17. Boys are less desirous of learning to read to please the teachers.

18. Boys, when bored, become discipline problems.

19. Boys are less able to cope with changes in learning process.

20. Boys are less able to adapt to new stimuli.

21. Boys respond to positive enthusiastic teacher who presents well-organized, challenging activities in the curriculum.

22. Boys enjoy a teacher who enlivens the classroom with laughter, smiles, etc.

23. Boys are more physically active, energetic, vigorous, etc.

24. Boys tend to wiggle, twist, push, turn, shove, etc. (are "more twitchy").

25. Boys are less easy to teach.

26. Boys are less easy to handle.

27. Boys need more behavioral involvement in learning.

28. Boys need many physical responses in active learning environment (i.e., individual chalk boards, pocket charts, flannelboards, colored marking pens, colored chalk, games, etc.).

29. Boys don't like "girlish" books. (Girls like both "boyish" and "girlish" materials/content).

30. Boys are less likely to listen attentively, effectively.

31. Boys have less verbal fluency.

32. Boys are less adequate in expressing themselves.

33. Boys participate less in class.

34. Boys are less skilled in oral language skills.

35. Boys have more auditory discrimination difficulties.

36. Boys have shorter attention spans.

    (12 to 15 minutes - young boys)

    (20 to 25 minutes - young girls)

37. Boys are less eager to learn.

38. Boys are less quickly motivated by praise to work hard and to do their best.

39. Boys are more curious.

40. Boys are more enthusiastic.

41. Boys are more tenacious in trying to solve a problem or learning something in which they are interested.

42. Boys have greater difficulty in articulations, enunciation and pronounciation.

43. Boys are less motivated to develop good work habits.

44. Boys are less desirous of assuming responsibility.

45. Boys are less motivated in learning to read.

46. Boys are less negative toward school, initially, but become more negative through the grades.

47. Boys need constant direction and task orientation in the learning situation.

48. Boys need to clearly understand directions.

49. Boys like stories that feature:

    *exploration and expeditions
    *outdoor life
    *sports and games
    *science fiction
    *sea adventures
    *fantasy

50. Stories which feature the following are less popular with boys:

    *music

*art
*family
*home life
*plays
*poetry

5. Most favored literary characteristics are as follows:

*excitement
*unusual experiences
*suspense
*liveliness and action
*fantastic, fanciful or weird elements
*surprise and unexpectedness
*humor

Teachers can:

*choose "boy-oriented" title of books, equipment and teaching techniques
*use "boy-oriented" reading materials (magazines, articles, game directions, cookbooks, etc.)
*use the five basic senses in lessons and activities
*maintain relaxed atmosphere with a minimum of distractions
*maintain a pleasant voice, following rhythmically, not too rapidly
*present lessons in "small bites," not too closely packed with concepts
*extend many opportunities for reaction - doing something with or about the acquired skill or information
*make use of physical responses
*extend a positive, concerned attitude, a feeling of approval and success
*avoid harshness in exercising discipline and control; firm by fair
*show warmth, praise, humor
*breed success!
*give constant direction, support and task orientation

Teachers can utilize "boy-oriented" (a) classroom activities/materials/teaching techniques/equipment; (b) playground activities; (c) extra-curricular activities (during school, after school, evenings and/or weekends). Teachers can plan/implement and evaluate successful primary program with both boys and girls.

Bibliography

Ames, L. B. & Ilg, F. L. Sex differences in test performance of matched girl-boy pairs in the five to nine-year-old range. Journal of Genetic Psychology, 1964, 104:25-34.

Barnes, N. B. & Gehringer, J. Project Boy Syllabus Activity Card Program. Thermalito Union Elementary School District, Oroville, California, 95965, 1977.

_____. Planning/implementation/evaluation of a successful boy-oriented primary program for both boys and girls. Symposium presented at the 23rd Annual Meeting of the International Reading Association, Houston, Texas, May 1-5, 1978.(a)

_____. What does a boy-oriented teacher look like? Symposium presented at the 23rd Annual Meeting of the International Reading Association, Houston, Texas, May 1-5, 1978.(b)

Bentzen, F. Sex ratios in learning and behavior disorders. National Elementary Principal, Nov., 1966, 46:13-17.

Berlin, I. A psychiatric view of learning disorders. Proceedings of the 61st Ross Conference on Pediatric Research Learning Disorders in Children, Columbus, Ohio, Ross Lab, 1969.

Biller, H. B. & Barstelmann, L. J. Masculine development: An integrated review. Merrill Palmer Review, 1967, #4, 13:253-294.

Brewton, R. C. Relationships of Sex-Role Identification and Conformity to Creative Thinking. Doctoral Dissertation, University of Georgia, 1968.

Broverman, D. M., et al. Reply to the comment by Singer and Montgromery on roles of activation and inhabitation in sex differences in cognitive abilities. Psychological Review, 1969, 76:328-331.

Caplan, P. J. & Kinsbourne, M. Sex differences in response to school failure. Journal of Learning Disabilities, 1974, #4, 7:49-52.

Davidson, H. H. & Lang, G. Children's perception of their teachers' feelings toward them related to self-perception, school achievement, and behavior. Journal of Experimental Education, 1960, 29:107-118.

Dwyer, C. A. Children's Sex-Role Standards and Sex-Role Identification and Their Relationship to Achievement. Doctoral Dissertation, University of California, Berkeley, 1972.

Entwisle, Doris R. Implication of language socialization for reading models and for learning to read. Reading Research Quarterly, 1971, 7:111-167.

Firester, L. & Firester, J. Wanted: A new deal for boys. The Elementary School Journal, Oct., 1974, pp. 31-35.

Gehringer, J. & Barnes, N. M. Stafiing patterns and in-service needs of a boy-oriented program. Symposium presented at the 23rd Annual Meeting of the International Reading Association, Houston, Texas, May 1-5, 1978.

Gentile, L. M. & McMillan, M. M. Why Johnny can't read but Mary can: Men can help. Reading Teacher, 1976, 29:771-773.

Gross, A. D. The relationship between sex differences and reading ability: A study of children's performance in an Israeli Kibbutz System. Paper presented at the World Congress on Reading, Singapore, August 17-19, 1976.

Gunderson, D. V. Sex differences in language and reading. Language Arts. March, 1976, pp. 301-306.

Holt, J. How Children Fail. Dell Publishing Co., 1964.

Ilg, F. L. & Ames L. B. School Readiness. Harper and Row, 1965.

Kagen, J. The acquisition and significance of sex-typing and sex-role identity. In M. L. Hoffman and L. W. Hoffman (Eds.), Review of Child Development Research, 1964, 1:137-167.

Kinsbourne, M. Neuropsychological and neurophysiological aspects of learning disorders. Proceedings of the 61st Ross Conference on Pediatric Research Learning Disorders in Children, Columbus, Ohio, Ross Lab, 1969.

Lavin, D. F. The Prediction of Academic Performance. New York: Russell Sage Foundation, 1965.

Le Barre. The Human Animal. University of Chicago Press, 1954.

Maccoby, E. E. Women's intellect. In K. Doyle (Ed.), Interaction: Readings in Human Psychology, D. C. Heath, 1973.

Maccoby, E. E., et al. The Psychology of Sex Differences, Stanford University Press, 1974.

May, C. R. Men teachers in early childhood education: Which direction will they take? Indiana State University Contemporary Education, April, 1971, pp. 222-226.

Meade, M. Male and Female: A Study of the Sexes in a Changing World, Wm. Morrow and Co., 1919.

McCarthy, D. Language development in children. In L. Carmichael (Ed.), Child Psychology, Wiley & Sons, 1954.

_____. Sex Differences in the Growth of American School Children. Warwich & York, 1964.

National Education Association. Estimates of School Statistics Research Report, 1970-75.

Nila, Sister Mary. Foundations of a successful reading program. Education, 1953, 83:543-555.

Peltier, G. I. Sex differences in the school: Problem and proposed solutions. Phi Delta Kappan, Nov., 1968, 50:182-185.

President's Commission on the Status of Women. American Women, U. S. Government Printing Office, 1963.

Preston, R. C. Reading achievement of German boys and girls related to sex of teacher. Reading Teacher, February, 1979, pp. 521-526.

Rubin, R. Sex Differences in Effects of Kindergarten Attendance on Development of School Readiness and Language Skills. Research report, Minnesota University, Minneapolis Research, Development and Demonstration Center of Handicapped Children, Oct., 1970.

St. John, C. The Maladjustment of Boys in Certain Elementary Grades. Educational Administration and Supervision, 18: 659-72, p. 8, 1932.

Sexton, P. The Feminized Male White Collars and the Decline of Manliness. Random House, 1969.

Scheinfeld, A. Women and Men. Harcourt, Brace, and Co., 1943.

Stanchfield, J. Sex Differences in Learning to Read, Phi Delta Kappan, 1973,

Starr, A. Human Aggression. Atheneum, 1968.

Tyler, L. Sex differences. In Robert Ebel (Ed.), Encyclopedia of Educational Research, MacMillan and Co., 4th ed., 1969.

Vroegh, K. Sex of teacher and academic achievement: A review of research. The Elementary School Journal, 1976, pp. 394-399.

Vairo, P. Wanted: 20000 male first grade teachers. Education, Feb./March, 1969, pp. 222-224.

Wilson, F., Burke, A. & Fleming, C. Sex differences in beginning reading in a progressive school. Journal of Educational Research, 1939, 32:570-582.